



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------|------------------|
| 10/632,145 | 07/31/2003 | Garland L. Segner | EV31008US | 1829 |
| 9561 | 7590 | 07/19/2006 | EXAMINER | |
| POPOVICH, WILES & O'CONNELL, PA 650 THIRD AVENUE SOUTH SUITE 600 MINNEAPOLIS, MN 55402 | | | HOEKSTRA, JEFFREY GERBEN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3736 | |

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--|--------------------------------------|--|
| Office Action Summary | Application No. 10/632,145 | Applicant(s) SEGNER ET AL. | |
| | Examiner Jeffrey G. Hoekstra | Art Unit 3736 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-19, 22-35, 37-40 and 43-49 is/are pending in the application.
- 4a) Of the above claim(s) 3-6, 10, 11, 16, 22, 23, 26-28, 31, 32, 37, 43-47 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7-9, 12-14, 17-19, 24, 25, 30, 33-35, 38-40 and 48 is/are rejected.
- 7) ☒ Claim(s) 1, 8, 12-14, 17-19, 24, 33-35, 38-40 and 48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice of Amendment

1. In response to the amendment filed on 06/19/2006, amended claims 1, 24, 45, 46, 48, and 49 are acknowledged. The current rejections of the pending claims 1, 2, 7-9, 12-14, 17-19, 24, 25, 30, 33-35, 38-40, and 48 are *withdrawn*. The following new and reiterated grounds of rejection are set forth:

Claim Objections

2. Claims 1, 8, 17, 18, 24, 38, 39, and 48 are objected to because of the following informalities: the limitation of "the plurality of wire strands" as stated appears to lack antecedent basis.

3. Claims 12-14, 17-19, 33-35, and 38-40 are objected to because of the following informalities: the positive recitation of units of measure varying between inches and centimeters. The examiner notes consistency would be appreciated.

4. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3736

6. Claims 24, 30, 33-35, 38-40, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Avellanet et al (US 6,019,736). Avellanet et al discloses a guidewire (60, 70, 85, 100) as best seen in Figures 10-12, comprising:

- (a) an elongate, flexible core (61, 71, 86) having a distal taper (63, 73, 87) and extending to the distal end of the guidewire as seen in Figures 10 and 11;
- (b) a single coil (89, 116) disposed on at least a distal portion of said core (column 8 lines 39-61), said coil comprising 3 to 24 wire strands (column 4 lines 12-19 and column 8 line 39 – column 9 line 10) helically wrapped parallel to one another forming a stranded tubular structure wherein the angle between the wire strands and the longitudinal axis of the guidewire is capable of being between 10 and 45 degrees; and
- (c) a polymer tie layer 120 disposed on at least a portion of the wire strands wherein said tie layer provides the only attachment between the wire strands and the core (column 9 lines 4-39).

7. For claims 30, 33-35, and 38-40, Avellanet et al discloses a guidewire (60, 70, 85, 100) as best seen in Figures 10-12, comprising: a guidewire with an outer diameter of about 0.33 mm or 0.013 inches (column 8 lines 39-61) and a length range of 125 to 300 cm (column 1 lines 23-52), a coil with an outer diameter of about 0.25 mm or 0.0098 inches (column 3 lines 47-52) and a length of about 25 cm (column 8 lines 39-61), and a tapered core region capable of being between 5 to 80 cm.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 2, 7-9, 12-14, 17-19, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avellanet et al in view of Palermo et al (US 5,749,837).

11. For claims 1, 2, 8, and 25, Avellanet et al discloses the claimed invention as discussed above except for explicitly disclosing: (a) a lubricious polymer layer disposed on a polymeric tie layer disposed along the entire length of the guidewire's distal end and (b) attaching the coil comprised of a plurality of wire strands to the core by adhesive or solder. Palermo et al teaches a guidewire (200), comprising: an elongated flexible core (202), a distally disposed coil (112) fixedly attached to said core with a polymer adhesive (136) and solder (128), a polymeric tie layer (204) disposed along the entire

Art Unit: 3736

distal length of said guidewire, and a lubricious polymer layer or coating (206) disposed on said polymeric tie layer (columns 10-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the guidewire as taught by Avellanet et al, with the lubricious polymer layer and fixed attachments as taught by Palermo et al for the purpose of configuring the mechanical properties of a guidewire for increased patient safety whilst traversing tortuous vasculature with a guidewire during advanced intravascular surgical procedures.

12. For claim 7 as aforementioned, Avellanet et al discloses a guidewire (60, 70, 85, 100) as best seen in Figures 10-12, comprising: a polymer tie layer 120 disposed on at least a portion of the wire strands wherein said tie layer provides the only attachment between the wire strands and the core (column 9 lines 4-39).

13. For claims 12-14 and 17-19 as aforementioned, Avellanet et al discloses a guidewire (60, 70, 85, 100) as best seen in Figures 10-12, comprising: a guidewire with an outer diameter of about 0.33 mm or 0.013 inches (column 8 lines 39-61) and a length range of 125 to 300 cm (column 1 lines 23-52), a coil with an outer diameter of about 0.25 mm or 0.0098 inches (column 3 lines 47-52) and a length of about 25 cm (column 8 lines 39-61), and a tapered core region capable of being between 5 to 80 cm

Response to Arguments

14. Applicant's arguments with respect to claims 1, 2, 7-9, 12-14, 17-19, 24, 25, 30, 33-35, 38-40, and 48 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is (571)272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571)272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGH

JH


MAX F. HINDENBURG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700